

**WHAT IS CLAIMED IS:**

1        1. A method comprising:  
2            positioning a substrate and a light source assembly adjacent to each other,  
3                wherein the light source assembly is configured to generate light for  
4                reading or writing data to an optical data storage media, wherein the  
5                light source assembly comprises a first and second alignment marks,  
6                wherein the substrate comprises first and second alignment marks;  
7                adjusting a position of the light source assembly with respect to the substrate  
8                until a line extending between the first and second alignment marks of  
9                the light source assembly is substantially parallel to a line extending  
10              between the first and second alignment marks of the substrate;  
11              creating a rigid connection between the light source assembly and the  
12              substrate.

1        2. The method of claim 1 further comprising providing a first adhesive  
2            between the substrate and the light source assembly, wherein creating the rigid  
3            connection comprises activating the first adhesive to create a fixed bond between the  
4            substrate and the light source assembly.

1        3. The method of claim 2 wherein the first adhesive is applied to a surface of  
2            the substrate.

1        4. The method of claim 2 wherein the first adhesive is a heat activated  
2            adhesive, and wherein activating the first adhesive comprises subjecting the first  
3            adhesive to heat generated by a heat source.

1        5. The method of claim 1 wherein the light source assembly comprises a light  
2            source configured to emit a light beam for reading or writing data to the optical data  
3            storage media, wherein the line between the first and second alignment marks of the  
4            light source assembly is substantially parallel to a direction at which the light beam is  
5            emitted from the light source.

1       6. The method of claim 1 wherein adjusting further comprises concurrently  
2 viewing one of the first and second alignment marks of the light source assembly with  
3 one of the first and second alignment marks of the substrate through a microscope.

1       7. The method of claim 1 wherein adjusting further comprises concurrently  
2 viewing one of the first and second alignment marks of the light source assembly with  
3 a centerline of the substrate through a microscope, wherein the centerline extends  
4 between the first and second alignment marks of the substrate.

1       8. The method of claim 2 wherein the substrate comprises a bond pad, wherein  
2 the first adhesive is applied to the first bond pad.

1       9. The method of claim 2 further comprising:  
2 providing a second adhesive between the substrate and an integrated circuit;  
3 adjusting a position of the integrated circuit with respect to the substrate;  
4 activating the second adhesive to create a fixed bond between the integrated  
5 circuit and the substrate.

1       10. The method of claim 9 wherein the second adhesive is applied after the  
2 first adhesive is activated.

1       11. The method of claim 9 wherein the position of the integrated circuit is  
2 adjusted with respect to the substrate before the second adhesive is activated.

1       12. A method comprising:  
2 providing a first adhesive between a substrate and a light source, wherein the  
3 light source is configured to generate light for reading or writing data  
4 to an optical data storage media, wherein the substrate comprises first  
5 and second alignment marks, wherein the light source comprises first  
6 and second alignment marks;  
7 adjusting a position of the light source with respect to the substrate until a line  
8 extending between the first and second alignment marks of the light

9               source is substantially parallel to a line extending between the first and  
10               second alignment marks of the substrate;  
11               activating the first adhesive to create a fixed bond between the substrate and  
12               the light source.

1               13. The method of claim 12 wherein the position of the light source is adjusted  
2               with respect to the substrate before the first adhesive is activated.

1               14. The method of claim 12 wherein the first adhesive is applied to the  
2               substrate.

1               15. The method of claim 12 wherein the first adhesive is a heat activated  
2               adhesive, and wherein activating the first adhesive comprises subjecting the first  
3               adhesive to heat generated by a heat source.

1               16. The method of claim 12 wherein the light source is configured to emit a  
2               light beam, wherein the line between the first and second alignment marks of the light  
3               source is substantially parallel to a direction at which the light beam is emitted from  
4               the light source.

5               17. The method of claim 12 wherein adjusting comprises concurrently viewing  
6               one of the first and second alignment marks of the light source with one of the first  
7               and second alignment marks of the substrate through a microscope.

8               18. The method of claim 12 wherein adjusting comprises concurrently viewing  
9               one of the first and second alignment marks of the light source with a centerline of the  
10               substrate through a microscope, wherein the centerline extends between the first and  
11               second alignment marks of the substrate.

1               19. The method of claim 12 further comprising:  
2               providing a second adhesive between the substrate and an integrated circuit;  
3               adjusting a position of the integrated circuit with respect to the substrate;

4 activating the second adhesive to create a fixed bond between the integrated  
5 circuit and the substrate.

1 20. The method of claim 19 wherein the second adhesive is applied after the  
2 first adhesive is activated.